

IN THE MATTER OF an arbitration pursuant to  
the Fast Track Arbitration Procedure dated 21  
April 1994

Between

**ALAN SMITH**

Claimant

and

**TELSTRA CORPORATION LTD trading as  
TELECOM AUSTRALIA**

Telecom

**WITNESS STATEMENT OF \_\_\_\_\_**

I, \_\_\_\_\_ Street, Portland, in the State of Victoria,  
solemnly and sincerely declare and affirm as follows:

**BACKGROUND**

1. I commenced employment with Telecom in 1967. I initially spent 22 years with Telecom's Country Network Engineering group ("CNE") installing telephone switching equipment and associated equipment including AXE nodes, AXE 104 exchanges (rurals), ARK exchanges, ARF exchanges and associated equipment such as RCM systems. Between 1982 and 1989 I was a Projects Supervisor with CNE.
2. I transferred to Network Operations Portland in 1989 and between 1990 and 1994 I was responsible for maintaining switching equipment at the Portland exchange, including the AXE 104 exchange, the ARF exchange and associated equipment such as the RCM systems which connected customers to Portland AXE 104 exchange.
3. In 1972 I obtained a Telecommunications Technicians Certificate. In 1975 I obtained a Certificate of Technology with specialist studies in electronics and communications. I have also attended many Telecom provided courses relating to specific areas of work and equipment within the Telecom network (for example, in relation to AXE and ARF exchanges and RCM systems).
4. In February 1994 I left Telecom to further my studies.

**MR SMITH**

5. Mr Smith initially made complaints concerning his telephone service to Telecom's 1100 fault reporting number. Complaints made to 1100 that may have related to the Portland exchange were generally referred to me.
6. I regularly telephoned Mr Smith particularly during 1992 and 1993 to clarify the details of complaints he had made in relation to his telephone service. I never experienced any abnormal problems in attempting to telephone Mr Smith.

13A



facility was also connected to Mr Smith's 267 230 line and the facility was not removed from this line until 7 September 1993.

20. At the beginning of NNI's 1993 investigation, NNI's David Stockdale and Hew MacIntosh visited Mr Smith's camp to discuss concerns that Mr Smith had with his telephone service. At the conclusion of this visit, a briefcase belonging to Mr MacIntosh was left at Mr Smith's premises. After retrieving the briefcase from Mr Smith the following day I sat in my car to check the contents of the case. Whilst doing so Mr Smith came out to the car and gave me a file which had previously been in the briefcase. There was no doubt that Mr Smith had looked at what was in the briefcase and from ELMI call data records it can be seen that after acquiring the briefcase Mr Smith's facsimile line was particularly busy.

### EOS Tracing

19. For a period of several months random voice monitoring was undertaken by myself on incoming calls to Mr Smith's 267 267 telephone line. The monitoring was undertaken to assist in the identification of reported problems to this service. On each occasion the monitoring confirmed that incoming calls to Mr Smith's telephone were effective and successful except when Mr Smith was engaged on another call and on at least two occasions when Mr Smith's phone was left off the hook.

### Visits to the Cape Bridgewater Holiday Camp

20. I attended Mr Smith's camp on a number of occasions to install ELMI line testing devices and self answering equipment and to pick up ELMI tapes containing call data. I recall that on one occasion in 1993 when I arrived at Mr Smith's camp, Mr Smith was talking to someone on his telephone and subsequently ended this conversation. Shortly thereafter Mr Smith received an incoming telephone call and I heard Mr Smith tell this incoming caller that "he had not just been on the phone" (or words to that effect).
21. On Wednesday 8 September 1993 Ross Anderson and myself attended Cape Bridgewater Holiday Camp to pick up call data tapes that were produced by the ELMI equipment we had installed at the camp. It was usual for us to pick these tapes up on a Wednesday and, as a courtesy, we attempted to ring Mr Smith's 267 267 number prior to our visit. However, Mr Smith's line was giving an engaged tone and we decided to go out to the camp anyway. When we arrived we went into the room where the ELMI equipment was and checked the line which indicated the telephone was "off hook" by reference to the term "H-OFF". I asked Mr Smith if his telephone was off the hook and Mr Smith quickly walked to his office to investigate. From a distance I observed Mr Smith reach over to where his telephone sat. As a result of Mr Smith's action the ELMI equipment printed "H-ON" which we interpret as "phone on hook". I therefore concluded that Mr Smith's telephone had been off the hook.

### Increase software blocks

22. In March 1993, it became apparent that the Warrnambool AXE exchange did not have enough software blocks to handle all of its traffic during peak periods. This condition only occurred during peak traffic periods at the Warrnambool AXE exchange and would have resulted in all customers whose calls were switched through the Warrnambool AXE exchange to intermittently experience congestion tone if they originated the call or one burst of ring and dial tone on lift off if they were being called. Software deficiencies such as this are addressed by Telecom



## Cape Bridgewater RAX

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7. Until August 1991, Mr Smith's telephone service was connected to the Cape Bridgewater Rural Automatic Exchange ("RAX"). The RAX switched its local Cape Bridgewater telephone traffic and telephone traffic to/from Cape Bridgewater via the Portland ARF exchange. There were 5 outgoing circuits and 5 incoming circuits between the RAX and the Portland ARF exchange and therefore the RAX could facilitate a maximum of 5 incoming and 5 outgoing calls at any one time. It is important to recognise that Cape Bridgewater is essentially a rural area. In rural areas telephone traffic peaks occur after 6:00 pm when farmers have finished their work. People seeking to make bookings with Mr Smith's camp (such as school teachers) would generally require telephone access to Mr Smith during office hours of 9:00 am to 5:00 pm. In rural areas traditional business hours are periods of low telephone traffic. Accordingly, any congestion caused by the 5 in and 5 out limit of the RAX would have had a minimal effect on Mr Smith's telephone service during traditional business hours.

## Portland to Cape Bridgewater RCM systems

8. Since August 1991, Mr Smith's telephone service at Cape Bridgewater has been connected to the Portland AXE 104 exchange by an RCM system. The Portland to Cape Bridgewater RCM system is in fact made up of 3 separate RCM systems, each of which is capable of holding a maximum of 30 subscribers.
9. After the Portland to Cape Bridgewater RCM systems were installed, I became aware that the performance of the systems could be measured using the facility known as CRC. I checked the CRC error counters regularly between the date the RCM systems were installed and February 1994 when I left Telecom. Checking the CRC counters in this way was a normal maintenance practice. I can recall checking the CRC counters prior to March 1993. When I checked the CRC counters pre March 1993 I did not observe any errors that could have impacted upon the telephone service provided to Cape Bridgewater customers. A typical reading for each RCM system was 5 to 10 errored seconds, no degraded minutes and no severely errored seconds. I regularly checked the CRC counters for possible faults particularly when Mr Smith reported complaints.
10. Mr Smith's normal line (055 267 267), his facsimile line (055 267 230) and the line for his gold phone (055 267 260) were originally all on different subscriber cards in the same RCM system (number 1). In February 1993, in response to complaints from Mr Smith, I transferred both his 267 267 and 267 230 services from RCM system no. 1, connecting 267 230 to system no. 2 and 267 267 to system no. 3. These changes were made as a precautionary measure because if one of the RCM systems went down Mr Smith would still have two telephone services in operation.
11. Mr Smith's telephone service was of a good standard as would be expected with the Cape Bridgewater to Portland RCM system.
12. The Portland to Cape Bridgewater RCM system provides Cape Bridgewater customers with a direct connection to the Portland AXE 104 exchange. As a result, Mr Smith's telephone service system is clearly one of the most advanced and best systems available to Telecom's rural customers.



## Recorded Voice Announcements

13. In digital exchanges all numbers that are not recognised as a legitimate number result in recorded voice announcements ("RVA") being sent to the originating caller. In analogue exchanges originating callers receive number unobtainable tones in the same circumstances. In 1991/92/93 the conversion of Telecom's network from analogue to digital technology was occurring throughout country Victoria. As a result, the likelihood of customers receiving RVA when calling customers in country Victoria (for example, when dialling incorrect numbers) increased. This could account for an increase in RVA complaints coming to my notice during the 1991/92 period.
14. In March 1992 Mr Smith did have a genuine problem with RVA which was caused by a data entry problem at Telecom's MELU exchange. This fault existed for less than three weeks and came to Telecom's attention due to complaints being received from several Cape Bridgewater customers including Mr Smith.
15. I am aware that a file note exists dated 24 July 1992 which records that I told Mr Tom Leydon of Telecom's Network Management in relation to RVA that:  
*"Network Investigation should have been bought [sic] in as fault has gone on for 8 months."*

This note refers to the occurrence of RVA in the entire Telecom rural network after conversion of analogue to digital and does not relate to Mr Smith. I refer to and confirm the matters set out in section 3.3.1 of Briefing paper B 004 which deal with the effect of the MELU condition on the services to Mr Smith.

16. Subsequent to March 1992 my practice was to initiate test calls from the exchange of an incoming call reported by Smith to be affected by RVA. The object of these test calls was to test the standard of the services provided to the Portland exchange. The number of test calls varied between approximately 10 and 100 on each occasion. No problems were discovered as a result of this testing.

## NNI Investigations

17. Despite extensive investigations conducted by myself and other local Telecom staff, in the July 1992 Mr Smith still believed his telephone service was not performing satisfactorily. I therefore requested that Telecom's National Network Investigation group ("NNI") conduct a full investigation. NNI investigated Mr Smith's service in 1992 and ran approximately 35,000 test calls. These test calls were first made to a to line located initially in Portland and later at the Cape Bridgewater end of the Portland to Cape Bridgewater RCM. The service number for this test line was 267 211. Sometime in August 1992 we also set up a test line all the way to Mr Smith's premises. The service number for this test line was 267 230 and this line was later provided to Mr Smith for him to use as a facsimile and outgoing line.
18. The thousands of test calls conducted by NNI did not locate any network problems which could support Mr Smith's concerns about his telephone service.
19. On or around 19 August 1993, NNI's David Stockdale asked me to remove the MCT facility off Mr Smith's service. I immediately removed the MCT facility off Mr Smith's 267 267 incoming line. However, I did not at that time recall that the MCT



AXE staff at Ballarat as soon as fault reports indicate a problem or a result of routine checking of software blocks. The need to increase software blocks occurs as traffic through an exchange increases. This is a normal requirement as a result of increased traffic.

### No Lock Ups of Mr Smith's Line Interfaces

23. From mid 1990 to February 1994, over which period I was responsible for the Portland exchange, I did not encounter a locked up line interface ("LI") for any of Mr Smith's services.

### Problems calling Cape Bridgewater from Portland Hospital

24. I am aware that Mr Smith has made some issue of the fact that in September 1993 the Portland Hospital had difficulties calling Cape Bridgewater numbers. A Further investigation subsequently revealed that a PABX at the hospital was at fault. This problem with Hospital's privately owned customer equipment was remedied by Telecom staff.

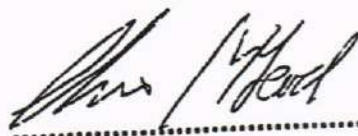
### Conclusion

25. During the period that I was maintaining the Portland exchange my file containing details relating to Mr Smith's service complaints was of a similar size to my file for the other 7000 odd subscribers connected directly to the Portland exchange.
26. From my experience in dealing with rural Telecom exchanges, both during my time with CNE and whilst in Portland, it is my opinion the performance of Telecom's network in the Portland district is above average compared to other rural exchange networks. In my opinion customers in the Portland district, inclusive of Cape Bridgewater customers, were provided with a most satisfactory telephone service.
27. The standard of services provided to Mr Smith was entirely consistent to be a very good level of service provided to other rural customers.
28. Throughout the whole of my service at Portland Mr Smith's complaints have always been investigated in a professional manner. All possible assistance has been given by Telecom personnel to Mr Smith. Considerable efforts have been made to ensure that the telephone service provided to Mr Smith are of a high standard.

**AND I MAKE** this solemn declaration conscientiously believing the same to be true and correct.

DECLARED at Melbourne )  
in the State of Victoria )  
this 2<sup>nd</sup> day of December 1994. )

Before me:



**CHRISTOPHER MARK McLEOD**  
*Freehill Hollingdale & Page*  
101 Collins Street, Melbourne  
A Solicitor holding a current  
Practising Certificate pursuant  
to the Legal Profession  
Practice Act 1958.



To Manager  
Warrnambool COG  
[REDACTED]

From [REDACTED]  
Pair Gains Support

File XS13/2.

Date 12th July 1993.

National Switching Support  
(Nss)

9th Floor  
36 Collins St  
Melbourne 3000  
Australia

[REDACTED]

C.C. Manager Network Investigations Att. D.Stockdale  
Manager Commercial Network Support Att. R.Morris.

**PORTLAND - CAPE BRIDGEWATER  
RCM SYSTEM.**

At the request of [REDACTED], Manager, Warrnambool COG. (CPE), NSS-Melbourne, Pair Gain Support Section, visited Portland exchange on 2nd March '93, to investigate problems reported on the Portland - Cape Bridgewater RCM system.

Initial reports were of a vocal customer at Cape Bridgewater complaining of VF cut-offs in one direction. The customer had been transferred off system 1, onto systems 2 and 3 on the 24th February '93, and had experienced no further problems. Investigations revealed that system 1 was running a large number of degraded minutes (DM) and errored seconds (ES) in the Portland to Cape Bridgewater direction, these errors could have caused the VF cut-off problem.

**Initial error counter readings:-**

**Portland to Cape Bridgewater direction:-**

	System 1	System 2	System 3
SES	0	0	0
DM	45993	3342	2
ES	65535	65535	87

**Cape Bridgewater to Portland direction:-**

	System 1	System 2	System 3
SES	0	0	0
DM	1	1	0
ES	246	751	23

At this stage we had no idea over what period of time these errors had accumulated.

Attempts to test the inground repeaters using the "trios" system were unsuccessful as the strapping records could not be located.

Other faults identified with the Cape Bridgewater installation were:-

- the presence of 500Hz. noise on all customer lines at -58 dBm causing minor noise problems.

- 0,01
- cable ducts into both the cross connect cabinet and the concrete hut were sealed allowing the ingress of moisture, which could affect the error counters detailed above.
  - the alarm system on all three RCM systems had not been programmed. This would have prevented any local alarms being extended back to Portland.

The bearer performance was monitored overnight and revealed that system 1, in the Portland to Cape Bridgewater direction, accumulated approximately 450 DM's and 43500ES's while systems 2 and 3 recorded no errors in either direction.

A problem with the installation of the enhanced lightning protection modules in the IDS block at Cape Bridgewater was discovered. After this problem was rectified and the bearer monitored overnight, no DM's or ES's were recorded.

All the SE boards used in the Portland - Cape Bridgewater RCM system have now been modified to eliminate the 500Hz. noise problem. SE boards installed in the Portland - Alcoa RCM system were also modified to eliminate a 500Hz. noise problem on cut over.

The problem of sealing the cable ducts has since been rectified by the local lines staff.

NSS-Melbourne has continued to monitor the Portland - Cape Bridgewater bearers since the 3rd March '93. In the period from the 3rd March '93, to the 17th March '93, the errors on all three bearers have been minimal.

ie:- Portland to Cape Bridgewater direction:- system 1, 4 ES  
- system 2, 3 ES  
- system 3, 0 ES

Cape Bridgewater to Portland direction:- system 1, 1 ES  
- system 2, 1 ES  
- system 3, 3 ES

[REDACTED]  
[REDACTED]  
for Supervising Engineer, National Switching Support - Melbourne.

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